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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _21 March 2007_.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _26-33 and 36-38_ is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _26-33 and 36-38_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _31 December 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Receipt of Applicant's Amendment, filed 3/21/2007 is acknowledged. Claims 26-

30, and 32-33 have been amended and claims 36-38 have been newly added.

Claim Rejections - 35 USC § 101

2.   In view of the amendments and arguments received on 03/21/2007, the 35 U.S.C

101 rejections are hereby withdrawn.

Claim Rejections - 35 USC § 112

3.   In view of the amendments received on 03/21/2007, the 35 U.S.C 112 rejections

are hereby withdrawn.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

Claims 26-27 are rejected under 35 U.S.C 102(e) as being anticipated by **Satake et al. (Satake** hereinafter) (US Patent No. 5,603,006).

With respect to claim 26, **Satake** teaches **a method of operating an electronic switch comprising:**

"receiving a plurality of data objects and receiving the data objects in a plurality of data receivers" as the conventional device, the cache memory control unit according to the embodiment of the invention has to write the data from the MS to all the four banks after the arrival of the data (**Satake** Col 4, Lines 5-8).

"receiving a first signal indicating that all of the receivers are busy" as the stack busy monitoring circuit 29 receives in its display element 21 the status indicating whether or not each bank is busy through the signal line 117 led from each of the banks 33 to 36. The bank-busy status is indicated to the gates 12 and 13 through the signal line 109 (**Satake** Col 6, Lines 1-5).

"receiving an additional data object" as if the previously received request occupies the bank, the subsequent request has to wait at the directory section (**Satake** Col 1, Lines 47-49). The request being made is for the additional data object.

"providing a holding area for data objects and storing the additional data object in the holding area" as the cache memory temporarily holds the request in the corresponding request stack so that the cache memory can efficiently refer to or write data in the cache bank upon the determination as to whether or not the data array is busy (**Satake** Col 2, Lines 20-25).

"receiving a second signal indicating that a receivers is free and

transmitting the additional data object to the free receiver" as the cache memory

temporarily holds the request in the corresponding request stack so that the cache

memory can efficiently refer to or write data in the cache bank upon the determination

as to whether or not the data array is busy (**Satake** Col 2, Lines 20-25).

Claim 27 is same as claim 26 and is rejected for the same reason as applied

hereinabove.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 28, 30-33, and 36-38 are rejected under 35 U.S.C 103(a) as being

unpatentable over **Satake et al.** (US Patent No. 5,603,006) as applied to claims 26-27

above, in view of **Butler et al. (Butler** hereinafter) (U.S. Patent No. 5,495,447).

With respect to claim 28, **Satake** teaches **an apparatus for storing data in a**

document holding file, comprising:

"a plurality of receivers and a plurality of data receivers that receive the

data objects" as the conventional device, the cache memory control unit according to

the embodiment of the invention has to write the data from the MS to all the four banks

after the arrival of the data (**Satake** Col 4, Lines 5-8).

"a busy transfer switch that direct the data objects to the document

holding file when each of the data receivers is busy" as the cache memory

temporarily holds the request in the corresponding request stack so that the cache

memory can efficiently refer to or write data in the cache bank upon the determination

as to whether or not the data array is busy (**Satake** Col 2, Lines 20-25).

Satake teaches the element of claim 28 as noted above but does not explicitly

discloses **"indexing receivers for indexing."**

However, **Butler** discloses **"indexing receivers for indexing"** as the compare

circuitry provides an index to the redundant storage unit and enables it to provide data

to or receives data from the output bus (**Butler** Abstract). Examiner interprets storage

unit as a receiver and the receiver is being provides with indexer to index the storage

device/receiver.

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teaching of the cited references because **Butler's**

teachings would have allowed **Satake** to provide faster and efficient method of data

retrieval and storage by using an indexer for the storage unit.

With respect to claim 30, **Satake** teaches **"a sensing device, associated with the data receiver, for sending a signal to the busy transfer switch indicating that the data receivers are not available"** as the stack busy monitoring circuit 29 receives in its display element 21 the status indicating whether or not each bank is busy through the signal line 117 led from each of the banks 33 to 36. The bank-busy status is indicated to the gates 12 and 13 through the signal line 109 (**Satake** Col 6, Lines 1-5).

With respect to claim 31, **Satake** teaches, **"wherein the busy transfer switch receives the signal from the sensing device and thereby directs the received data object to the holding file"** as the cache memory temporarily holds the request in the corresponding request stack so that the cache memory can efficiently refer to or write data in the cache bank upon the determination as to whether or not the data array is busy (**Satake** Col 2, Lines 20-25).

Claim 37 is essentially the same as claims 30 and 31 except that it sets forth the claimed invention as an apparatus and is rejected for the same reasons as applied hereinabove.

With respect to claim 32 and 33, **Satake** teaches **"wherein the sensing device sends a second signal to the busy transfer switch indicating that a data receiver is available"** and **"wherein the busy transfer switch directs the received data**

object in the holding file to the available data receiver" as the cache memory temporarily holds the request in the corresponding request stack so that the cache memory can efficiently refer to or write data in the cache bank upon the determination as to whether or not the data array is busy (**Satake** Col 2, Lines 20-25).

With respect to claim 36, **Satake** teaches **an apparatus for storing data comprising:**

"a plurality of receivers adapted to receive a plurality of data objects received from a plurality of data object sources" as the conventional device, the cache memory control unit according to the embodiment of the invention has to write the data from the MS to all the four banks after the arrival of the data (**Satake** Col 4, Lines 5-8).

"a document holding file adapted to temporarily store at least a portion of the data objects in sequential order" as the cache memory temporarily holds the request in the corresponding request stack so that the cache memory can efficiently refer to or write data in the cache bank upon the determination as to whether or not the data array is busy (**Satake** Col 2, Lines 20-25).

"a plurality of data receivers adapted to receive the plurality of data objects" as the conventional device, the cache memory control unit according to the embodiment of the invention has to write the data from the MS to all the four banks after the arrival of the data (**Satake** Col 4, Lines 5-8).

"a switch adapted to route the plurality of d data objects to the plurality of data receivers if at least one of the data receivers is not busy and to the document holding file if each of the plurality of data receivers is busy" as the stack busy monitoring circuit 29 receives in its display element 21 the status indicating whether or not each bank is busy through the signal line 117 led from each of the banks 33 to 36. The bank-busy status is indicated to the gates 12 and 13 through the signal line 109 (**Satake** Col 6, Lines 1-5). The cache memory temporarily holds the request in the corresponding request stack so that the cache memory can efficiently refer to or write data in the cache bank upon the determination as to whether or not the data array is busy (**Satake** Col 2, Lines 20-25).

Satake teaches the element of claim 36 as noted above but does not explicitly discloses **"indexing receivers for indexing."**

However, **Butler** discloses **"indexing receivers for indexing"** as the compare circuitry provides an index to the redundant storage unit and enables it to provide data to or receives data from the output bus (**Butler** Abstract). Examiner interprets storage unit as a receiver and the receiver is being provides with indexer to index the storage device/receiver.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of the cited references because **Butler's** teachings would have allowed **Satake** to provide faster and efficient method of data retrieval and storage by using an indexer for the storage unit.

Claim 38 is essentially the same as claim 36 except it sets forth the claimed

invention as a method and is rejected for the same reasons as applied hereinabove.

6.   Claim 29 is rejected under 35 U.S.C 103(a) as being unpatentable over **Satake**

et al. (US Patent No. 5,603,006) in view of **Butler et al.** (U.S. Patent No. 5,495,447) as

applied to claims 28, 30-33, and 36-38 above, further in view of **Fukuzawa et al.**

(**Fukuzawa** hereinafter) (U.S. Patent No. 5,247,620).

With respect to claim 29, **Satake and Butler** do not explicitly teach **"a polling**

unit that searches for a data object to be stored in the data warehouse."

However, **Fukuzawa** discloses **"a polling unit that searches for a data object**

to be stored in the data warehouse" as a third technique in which a string search

device is used for the address storage table, all the processings of

search/comparison/deletion/registration are executed by means of hardwares. In this

case, since comparison among a plurality of entries is executed successively with one

comparator (**Fukuzawa** Col 2, Lines 8-13).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teaching of the cited references because

Fukuzawa's teachings would have allowed **Satake and Butler** to provide reduction of

unnecessary traffic by searching and filtering for only the necessary data.

Response to Arguments

7.   Applicant's arguments filed on 02/16/2007 have been considered but are moot in

view of the new ground(s) of rejection.

See above rejections for the arguments. In these arguments applicant relies on

the amended claims and not the original ones.

Claims must be given the broadest reasonable interpretation during examination and

limitations appearing in the specification but not recited in the claim are not read into the claim

(See M.P.E.P. 2111 [R-I]).

Conclusion

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Contact Information

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Usmaan Saeed whose telephone number is (571)272-

4046. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hosain Alam can be reached on (571)272-3978. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Usmaan Saeed
Patent Examiner

Art Unit: 2166

Leslie Wong   US
Primary Examiner   June 08, 2007

HOSAIN ALAM
IPERVISORY PATENT EXAMINER